

What Is Claimed Is:

1. A propeller shaft for a vehicle comprising an elongated hollow cylindrical body and a reduced profile intermediate portion defining at least one transition area between the intermediate portion and the body, wherein in the region of the transition area, at least part of the
5 cylindrical body lies over the intermediate portion such that during fracture in the region of the transition area, the body telescopes over the intermediate portion.
2. A propeller shaft according to claim 1 wherein the shaft is metal.
- 10 3. A propeller shaft according to claim 1 wherein the intermediate portion has a reduced diameter as compared to the body.
4. A propeller shaft according to claim 3 wherein said intermediate portion defines two transition areas, one at each end thereof.
- 15 5. A propeller shaft according to claim 1 wherein the intermediate portion comprises between 5 and 30 percent of the length of the propeller shaft.
6. A propeller shaft according to claim 1 wherein the intermediate portion extends substantially parallel to the cylindrical body.
- 20 7. A propeller shaft according to claim 1 wherein the intermediate portion is angled with respect to the cylindrical body.

8. A frangible telescopic propeller shaft comprising:
an elongated hollow cylindrical body;
a reduced diameter intermediate portion along a length of the

body; and

5 at least one spin-formed transition area between the intermediate portion and the body, the transition area comprising a frangible feature wherein at least a part of the cylindrical body lies over the intermediate portion such that, in response to a sufficient axial force, the frangible feature fractures to telescope the body over the intermediate
10 portion.

9. A propeller shaft according to claim 8 wherein the shaft is metal.

10. A propeller shaft according to claim 8 wherein the intermediate portion comprises between 5 and 30 percent of the length of
15 the propeller shaft.

11. A propeller shaft according to claim 8 wherein the intermediate portion extends substantially parallel to the cylindrical body.

12. A propeller shaft according to claim 8 wherein the intermediate portion is angled with respect to the cylindrical body.

20 13. A propeller shaft according to claim 8 wherein the cylindrical body lies over the intermediate portion by between 1 and 10 mm.

14. A method of making a propeller shaft comprising:
providing an elongated hollow cylindrical body;
spin forming a reduced profile intermediate portion along a
length of the body, the intermediate portion defining at least one transition
area between the intermediate portion and the body; and
thereafter, in the region of the at least one transition area,
applying an axial force to the body to fold the at least one transition area
onto itself such that at least a part of the cylindrical body lies over the
intermediate portion in the region of the transition area.
- 10 15. A method according to claim 14 comprising, while
applying the axial force, simultaneously supporting the exterior surface of
the cylindrical body to maintain the body diameter.
- 15 16. A method according to claim 15 wherein supporting
includes supporting the exterior surface of the cylindrical body with at least
one roller.
17. A method according to claim 15 wherein said
intermediate portion defines two transition areas, one at each end thereof.
18. A method according to claim 15 wherein spin-forming
includes cold forming.
- 20 19. A method according to claim 15 wherein the axial force
is applied while the exterior surface of the cylindrical body is spin-formed
to maintain its diameter.